AMENDMENTS TO THE CLAIMS:

Please amend the Claims as follows:

1. (Previously Presented) An excitation control circuit comprising:

a driving circuit for driving a coil of a solenoid in response to a pulse signal supplied from an external device;

a counter-electromotive force absorbing circuit, inserted in a path of a return current of the coil, for absorbing counter-electromotive force produced by the coil;

a return current circuit connected in parallel to the counter-electromotive force absorbing circuit; and

a control circuit for outputting a pulse signal for intermittently bypassing the return current through the return current circuit while the return current attenuates.

2. (Previously Presented) An excitation control circuit as claimed in claim 1, wherein the return current circuit has a first transistor, whose current path is connected between a positive electrode and a negative electrode of the coil, wherein the first transistor is switched on according to the pulse signal from the control circuit for defining the timing of bypassing the return current.

3. (Original) An excitation control circuit as claimed in claim 1, wherein the counter-electromotive force absorbing circuit includes:

a transistor whose current path is connected between a positive electrode and a negative electrode of the coil; and

a control system for switching on the transistor when an inter-terminal voltage of the transistor in its current path exceeds a predetermined value.

4. (Original) An excitation control circuit as claimed in claim 2, wherein the counter-electromotive force absorbing circuit includes:

a second transistor whose current path is connected between the positive electrode and the negative electrode of the coil; and

a control system for switching on the second transistor when an inter-terminal voltage of the second transistor in its current path exceeds a predetermined value.

5. (Previously Presented) An excitation control circuit as claimed in claim 2, wherein the first transistor is a field effect transistor.

6. (Original) An excitation control circuit as claimed in claim 3, wherein the transistor is a field effect transistor and the inter-terminal voltage of the transistor is a voltage between a source and a drain of the field effect transistor.

7. (Original) An excitation control circuit as claimed in claim 4, wherein the second transistor is a field effect transistor and the inter-terminal voltage of the second transistor is a voltage between a source and a drain of the field effect transistor.